Clearing the Way

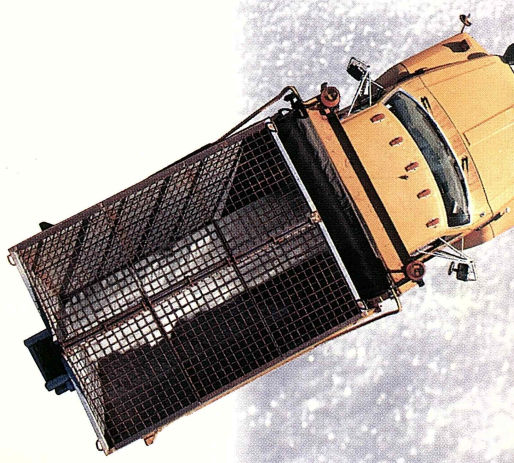
A Guide to MoDOT's Snow-Removal Practices

Our Mission: Get You Back on the Road

When winter weather hits Missouri, the Missouri Department of Transportation's snow-removal crews are ready for action.

More than 2,800 MoDOT maintenance workers and 1,800 vehicles are available for snow removal on the department's 32,000-mile highway system. The work is divided among 10 districts. The districts also can hire emergency equipment operators to help during snow and ice storms, or use personnel from other units besides maintenance to plow snow if necessary.

With plows, spreaders and de-icing materials in place, we'll work around the clock to clear snow and ice from the roadway surfaces. And while we adjust our efforts to deal with each storm's unique characteristics, you can be sure that when the snow is flying, MoDOT crews are doing everything they can to get you back on the road.



* Want information on road conditions? MoDOT's Internet web page at *www.modot.state.mo.us* shows winter road conditions on major routes across the state. Similar road-condition information is available by calling the Missouri State Highway Patrol's toll-free number, (800) 222-6400.

Who's First?

MoDOT adjusts its practices to deal differently with each storm and tries to return roads to near-normal driving conditions as soon as possible after a storm's end. But, because MoDOT doesn't have enough workers or trucks to clear every highway immediately after a snowstorm, the department has set priorities for which roads to clear first.

Priority 1: Roads with the highest traffic volumes are cleared, or treated, first. These include interstates and other major routes, which receive continuous treatment throughout a storm.

Priority 2: Next to be cleared are the heaviest-traveled sections of state numbered and lettered routes. These roads remain a priority until they're opened to two-way traffic.

Priority 3: Lower-volume, lettered or numbered routes are cleared next. MoDOT pays particular attention to school-bus and commuter routes. Traffic on these routes may be impeded until higher-volume routes are open and clear.

Priority 4: Even after all the roadway surfaces are as clear as possible, MoDOT's work is not done. Workers now must clean up the accumulation on shoulders, bridge edges and at interchanges. This work is usually completed during normal working hours.

More Brain, Less Brawn

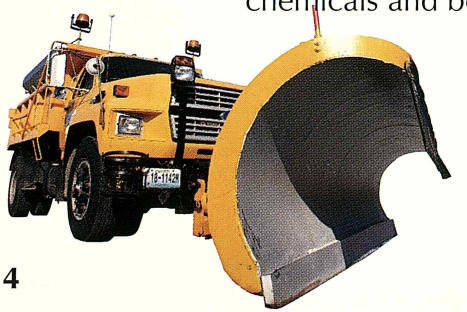
MoDOT spends approximately $30 million each year on snow- and ice-removal operations. Each year that number grows, and plowing gets more scientific. Even though the basic principle of scraping ice and snow from the road remains the same, MoDOT continually develops more sophisticated equipment and materials to do the job better and at a reasonable cost.

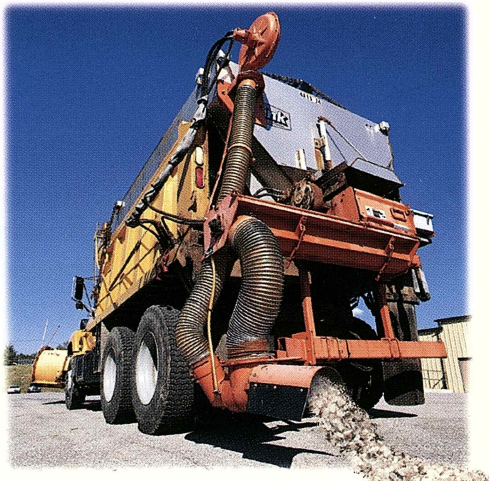
*If you find yourself stranded on the road, call *55 on your cell phone to reach the Missouri State Highway Patrol.*

Equipment

Road Weather Information Systems - Before winter weather hits, Road Weather Information Systems help staff determine what is occurring in the atmosphere and on the pavement. The equipment uses pavement and subsurface sensors to collect atmospheric and ground information, which allows MoDOT staff to determine when road crews should be sent out.

Truck-Mounted Pavement Sensors - Truck-mounted pavement sensors tell equipment operators the pavement temperature, which is not always the same as the air temperature. They can help predict when precipitation will stick to the pavement, allowing workers to apply chemicals and begin ice and snow removal effectively.





Ground-Speed Spreaders - When it's time to begin applying salt to the roadways, ground-speed spreaders drop salt straight down and prevent it from scattering. This keeps more of the melting compound on the pavement and reduces the amount of salt required to treat roads. This equipment also adjusts the amount of material spread to the speed of the truck, making application more even.

Materials

Salt Brine - Once crews are on alert, but before the snow flies and temperatures drop, some roads are pretreated with salt brine. Salt brine is a mixture of rock salt and water, which prevents snow and ice from sticking to the pavement, and makes plowing more effective. Using salt brine reduces the amount of salt required to treat roads during snowfalls, and it reduces the need to use other more-expensive chemicals, like calcium chloride. However, salt brine only works effectively down to about 15 degrees.

Rock Salt - During a snowstorm, MoDOT crews are usually seen driving their yellow trucks and dropping rock salt with salt brine. Salt acts as a melting compound on snow and ice. This is the most commonly used material in MoDOT's snow toolbox. In fact, on average MoDOT uses about 220,000 tons of rock salt per year.

Calcium Chloride - As temperatures dip below 15 degrees, calcium chloride is used with rock salt on some roads to break up the snow and ice. It's a more-expensive mixture than salt brine, yet it allows plows to clear the roads more effectively in the colder temperatures.

How to Keep Your Driveway Clear

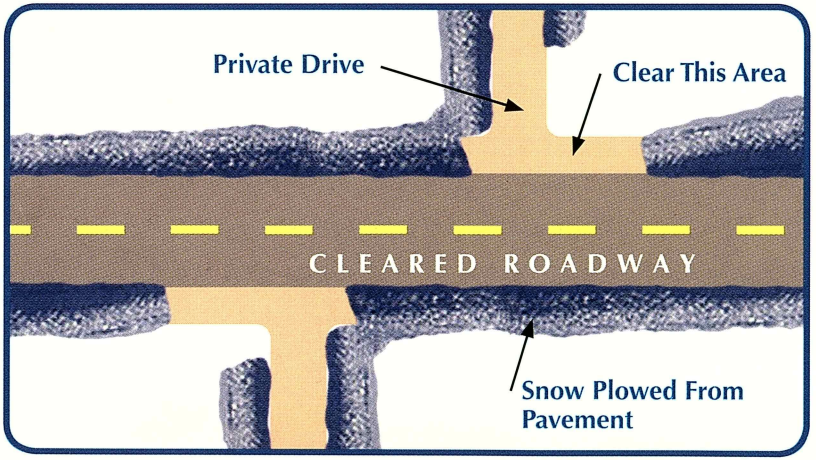
MoDOT's top priority in a snowstorm is to clear driving surfaces as soon as possible, which may require several trips down the same route. After the snow has stopped falling and the pavement is clear, crews return to widen the cleared areas and clean the shoulders.

Snow plowed from roads could end up blocking private driveways for some time. MoDOT recognizes the inconvenience this causes, but because of limited time and resources, plows can only clear private driveways at the request of local emergency officials.

To reduce the amount of snow that might block your driveway, shovel an open area along the shoulder at the entrance (see illustration below). Plow blades will then push snow into the area just before your driveway, leaving a much smaller amount in front of it.

For 24-hour winter road conditions on major routes across the state, visit MoDOT's web site at www.modot.state.mo.us, or call the Missouri State Highway Patrol at (800) 222-6400.

Call 888-ASK MODOT (275-6636) to receive reports during regular office hours.



Winter Driving: Tips for Safer Traveling

Before the Trip

❄ Winterize your car with fresh antifreeze, a good battery, a properly operating exhaust system and oil that will withstand the rigors of cold weather.

❄ If possible, avoid driving until the roads are cleared and treated. You don't want to slide off the road, and we don't want to plow around disabled vehicles.

❄ Do a thorough pre-trip inspection of your vehicle, paying special attention to your tires, brakes, windshield wipers and windshield-wiper fluid.

❄ Equip your vehicle with a survival kit that includes:

- **A flashlight with extra batteries**
- **A first-aid kit with a pocket knife**
- **Necessary medications**
- **Blankets and/or sleeping bags**
- **Extra mittens or gloves, socks, a warm cap and rain gear**
- **A small sack of sand to use for traction under your wheels**
- **A small shovel**
- **Booster cables**
- **Small tools — pliers, wrench, screwdriver**
- **A brightly colored cloth to use as a flag**
- **Non-perishable foods**
- **Bottled water**
- **Matches and candles**

Winter Driving: Tips for Safer Traveling

During the Trip

- Obey speed limits; don't speed.
- Use common sense, and adjust your speed to suit driving conditions.
- Give snowplows plenty of room, and don't pass them.
- Always wear your seat belt.
- Remember that driving is most dangerous when temperatures are near 32 degrees.
- Watch for other vehicles having problems with road conditions.
- Keep mirrors, windows and lights clean; keep your lights on.
- Don't pass other vehicles on or near bridges.
- Keep your fuel tank at least half-full.
- If you don't feel comfortable driving, park at the first safe place.

If Trapped in Your Vehicle

- Stay in the vehicle. Don't leave to search for help unless the help is visible within 100 yards. It's easy to become disoriented and lost in blowing and drifting snow.
- Display a trouble sign. Hang a brightly colored cloth on the radio antenna.
- Run the engine for about 10 minutes each hour. Run the heater and turn on the dome light only when the vehicle is running.
- Keep the exhaust pipe clear of snow, and open a window slightly for ventilation.
- Clap hands and move your arms and legs occasionally. Don't stay in one position for too long. If more than one person is in the car, take turns sleeping.
- Huddle together for warmth.
- Use newspapers, maps and even car mats for added insulation.

MoDOT

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